

The present invention provides for a method and system for measuring data quality of service in a wireless network using multiple peripatetic (i.e. mobile) and/or stationary, unattended, position, and performance instruments (PUPPIs) that are remotely controlled by a back end processor. In some embodiments of the invention, the data service whose quality is measured relates to wireless Internet access, e-commerce transactions, wireless messaging, or push technologies. In other embodiments of the invention, the system includes an element that is located within the wireless network infrastructure, for example, at the WAP gateway to monitor the wireless data protocol and to perform benchmarking measurements.